

EPA REGION 6
CONGRESSIONAL DISTRICT 02

Lincoln County Carrizozo Updated 03/31/00

Site Description

Location: ! The first Operable Unit (OU) is on Highway 380 in Carrizozo.

! The second OU ("Sierra Blanca") is approximately one mile south of the first OU.

Population: ! Approximately 1,000 people obtain drinking water from 29 municipal wells within 3

miles of the site.

Setting: The nearest municipal well is about 2 miles away from the Cimarron Mining Corp. area and 1/2 mile from the Sierra Blanca mill area.

! Wells are also used to irrigate food crops.

! Operable Unit 1 (OU1) location covers approximately 10 acres, and operated as a mill for raw ore. Precious metals were extracted with cyanide.

! Operable Unit 2 (OU2) covers about 7 acres, and operated as a mill that recovered precious metals using a flotation process.

Hydrology: The site is underlaid by quaternary alluvium and bolson deposits, in turn, underlaid by

Cretaceous Mesa Verde and Mancos Shale Formations.

Wastes and Volumes

! The principal pollutants at the site include cyanide in ground water up to 4,330 parts per billion (ppb) at Operable Unit 1, and lead in soils and sediments up to 18,000 parts per million (ppm) at Operable Unit 2.

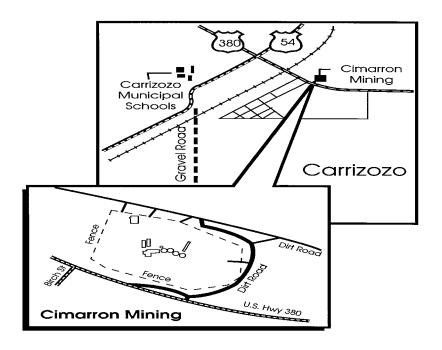
! Waste volumes are approximately 500,000 gallons of contaminated shallow ground water at OU1, and about 1,000 cubic yards of contaminated soils and sediments at OU2.

Site Assessment and Ranking

NPL LISTING HISTORY

Site HRS Score: 38.93 Proposed Date: 6/24/88 Final Date: 10/04/89 NPL Update: No. 7

Site Map and Diagram



The Remediation Process

Site History:

- ! The site operated from 1979 to 1982 using cyanide salts and metal strippers to extract gold from ore brought to the site.
- ! The New Mexico Environment Department (NMED) sent a certified Notice of Violation letter to Cimarron Mining Corp. on 6/22/82 for a non-permitted discharge.
- ! Cimarron filed for bankruptcy in 7/83.
- ! During an NMED-lead site inspection in May and June 1984, cyanide and heavy metals were detected in ground water, soils and mill tailings.
- ! In August 1987, EPA Emergency Response constructed a fence and posted warning signs to alert nearby community of contaminated site conditions.
- ! EPA began the remedial investigation and feasibility study (RI/FS) in 3/89.
- ! The "Sierra Blanca" property, a former processing area related to site operation, was incorporated into the site response actions in 1/90 as OU2.
- ! July 1991 May 1992, equipment was decontaminated and high hazard material was contained in mixing vats, tanks, and troughs. The contained waste was then consolidated and staged, overpacked onsite, then disposed of offsite.

Health Considerations:

! Potential for deeper drinking water aquifer contamination at OU1, and for ingestion of lead-contaminated soils at OU2.

Record of Decision

Signed: September 21, 1990 (OU1) Signed: September 6, 1991 (OU2)

Ground Water (OU1):

! The Record of Decision (ROD) for the OU1 called for extraction of shallow ground water and discharge to the publicly owned treatment works (POTW).

Soil Treatment (OU2):

! This ROD called for solidification and stabilization of contaminated soils and waste piles exceeding 500 ppm lead, with on site disposal.

Other Remedies Considered Reason Not Chosen
------GROUND WATER (OU1)------

1. No Action Not Protective

3. Pump and evaporate ground water Not cost-effective in the long term

4. Pump, treat and recharge ground Mottenst-effective in the long term

1. No Action Not protective

2. Institutional Controls No treatment, not protective

3. Cement Solidification/Off-site Not cost-effective in the long term

Municipal Landfill

4. Off-site Municipal/Hazardous Not cost-effective in the long term

Landfill

- ! Community Involvement Plan: Developed 4/89, revised 1991.
- ! Open houses and workshops: 9/88, 5/89, 3/90, 7/90, numerous other informal meetings.
- ! Original Proposed Plan Fact Sheet and Public Meeting: 7/30/90 (OU1), 6/17/91 (OU2).
- ! Original ROD Fact Sheet: 10/90 (OU1), 9/91 (OU2).
- ! Milestone Fact Sheets: 5/89, 3/90.
- ! Citizens on site mailing list: 83
- ! Constituency Interest:
 - Medium interest by the community.
 - Most citizens and officials do not feel any significant health threats exist at the site.
- ! Site Repository: Carrizozo City Hall, 100 Fifth Street, Carrizozo, NM 88301

Technical Assistance Grant

! Availability Notice: 1/89

! Letters of Intent Received: None ! Final Application Received: None

! Grant Award: N/A

! Current Status: No apparent interest by citizens in applying for the grant.

Contacts

! Remedial Project Manager: Petra Sanchez (EPA) 214-665-6686, Mail Code: 6SF-LT

! State Contact: George Schuman, 505/827-0072

! Community Involvement Coordinator: Nancy Stonebarger (EPA) 214-665-6619, Mail Code: 6SFPO

! Attorney: Keith Smith (EPA) 214-665-2157, Mail Code: 6SF-DL

Present Status and Issues

- **!** EPA, NMED and Corps of Engineers staff completed a groundwater sampling event in August, 1998 to assess the need for ongoing extraction and treatment of groundwater.
- In February 1999, EPA removed all extraction well pumps and determined that they were not functioning properly. EPA and NMED are currently evaluating alternatives for more effectively removing cyanide contaminated groundwater.
- PPA will be publishing in the Federal Register a Notice of a Partial Deletion for the site Spring 2000. The action will delete OU 2 from the NPL, along with OU 1 soils, however, the ground water treatment for OU 1 will continue and will remain on the NPL until further notice.

Benefits

- ! Drinking water for 1,000 residents drawn from public and private wells within three miles of the site will be protected from site contaminants.
- ! 500,000 gallons of shallow contaminated ground water, and 1,000 cubic yards of contaminated soils and sediments will be remediated.
- ! Some interest has been expressed in redeveloping the Carrizozo portion of the site for metals processing. No permanent plans have been proposed at this time.